UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,926	07/21/2003	Rudolf Maarten Bolle	YOR920000383US2	5377

		EXAMINER
7590	07/12/2005	WORJLOH, JALATEE

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ART UNIT	PAPER NUMBER
3621	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/623,926	BOLLE ET AL.
	Examiner	Art Unit
	Jalatee Worjloh	3621

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 April 2005</u>.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-18</u> is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-18</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some * c)☐ None of:
       1.☐ Certified copies of the priority documents have been received.
       2.☐ Certified copies of the priority documents have been received in Application No. _____.
       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   This Office Action is responsive to the amendment filed April 20, 2005, in which claims

1, 9, 15, 17 and 18 were amended.

Response to Arguments

2.   Applicant's arguments with respect to all claims have been considered but are moot in

view of the new ground(s) of rejection.

3.   Claims 1-18 have been examined.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 1-11, 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US

Patent No. 5644645 to Osuga in view of US Publication No. 2002/0025062 to Black.

Osuga discloses distorting in a processor (i.e. "remote computer system") a digital

representation of one or more biometrics of a user (i.e. "fingerprint image") to create a distorted

biometric using one or more transformation, at least one of the transactions comprising one or

more non-invertible functions (see abstract "a gray image of a fingerprint image sampled by an

image scanner portion is compressed by a non-reversible (lossy) coding by a non-reversible

mechanism"). Osuga does not expressly disclose comparing in response to a transaction the

distorted biometric with one or more stored distorted biometrics, so that the distorted biometric

represents a user without revealing the digital representation of the one or more biometrics.

Black discloses comparing in response to a transaction the distorted biometric with one or more

stored distorted biometrics, so that the distorted biometric represents a user without revealing the

digital representation of the one or more biometrics (see claim 1 "comparing the first sensed

fingerprint image with a first reference fingerprint image" and paragraph [0064], lines 4-6 "the

image compression employ lossy algorithms", which implies that the biometric is distorted. At

the time the invention was made, it would have been obvious to a person of ordinary skill the art

to modify the method disclose by Osuga to include the step of comparing in response to a

transaction the distorted biometric with one or more stored distorted biometrics, so that the

distorted biometric represents a user without revealing the digital representation of the one or

more biometrics. One of ordinary skill in the art would have been motivated to do this because it

achieves high transmission efficiency and it reduces piracy by providing a mechanism that

prevents unauthorized user from accessing the system (see Osuga col. 1, lines 60-64).

Referring to claims 2 and 4, Osuga discloses the biometric is a physical characteristic

(i.e. fingerprint) and where the biometric includes any one or more of the following: one or more

fingerprints, one or more minutiae, a voice pattern, a facial image, an iris, a hand signature, a

auditory signature, a gesture and a gait (see abstract).

Referring to claim 3, Osuga discloses a biometric (see claim 1 above). Osuga does not

expressly disclose the biometric is a behavior characteristic. Black discloses the biometric is a

behavior characteristic (see paragraph [0019], voice recognition, facial). At the time the

invention was made, it would have been obvious to a person of ordinary skill the art to modify

the method disclose by Osuga to include a biometric that is a behavior characteristic. One of ordinary skill in the art would have been motivated to do this because behavior characteristic such as signatures utilized devices that are more durable then cameras and sensors that are used in other physical biometric.

Referring to claim 5, Osuga discloses creating a distorted biometric (see claim 1 above). Osuga does not expressly disclose the method where the transaction is for one or more of the following: use of financial instrument, providing a service, executing a contract, a sale, a bid, a submitted account number, an authorization, an identification, a reservation request, a purchase, a quote, an access to a physical structure, an access to a financial account, an authority to manipulate a financial account, an access to a database, an access to information, a request for a privilege, a request for a network service, an offer for a network service, an auction, and an enrollment. Black discloses the method where the transaction is for one or more of the following: use of financial instrument, providing a service, executing a contract, a sale, a bid, a submitted account number, an authorization, an identification, a reservation request, a purchase, a quote, an access to a physical structure, an access to a financial account, an authority to manipulate a financial account, an access to a database, an access to information, a request for a privilege, a request for a network service, an offer for a network service, an auction, and an enrollment (see abstract; The identity verification system is used at point-of-sale terminals, in various closed environments, to access a computer network, in applications involving pen-based computers and smart-pens, and for e-commerce.) At the time the invention was made, it would have been obvious to a person of ordinary skill the art to modify the method disclose by Osuga to include the method where the transaction is for one or more of the following: use of financial

instrument, providing a service, executing a contract, a sale, a bid, a submitted account number, an authorization, an identification, a reservation request, a purchase, a quote, an access to a physical structure, an access to a financial account, an authority to manipulate a financial account, an access to a database, an access to information, a request for a privilege, a request for a network service, an offer for a network service, an auction, and an enrollment. One of ordinary skill in the art would have been motivated to do this because it provides a secure access control mechanisms that ensures that unauthorized individuals are prevented from accessing the system.

Referring to claims 6 and 7, Osuga discloses creating distorted biometrics using a processor (see claim 1 above). Osuga does not expressly disclose the distorted biometric is used to authenticate the user. Black discloses the distorted biometric is used to authentic the user, where the user if one or more of the flowing: a customer, a customer submitting an order on a network, a client, an employee, a user of a service, and a purchaser of a product (see abstract; The identity verification system is used at a point-of-sale terminals for e-commerce. Each participant carries on his/her person a device that includes an encrypted biometric for reference purposes to gain access into the system). At the time the invention was made, it would have been obvious to a person of ordinary skill the art to modify the method disclose by Osuga to include the method where the distorted biometric is used to authenticate the user. One of ordinary skill in the art would have been motivated to do this because it prevents unauthorized individuals from accessing the system.

Referring to claim 9, Osuga discloses receiving one or more distorted biometrics, wherein said one or more distorted biometrics were created using one or more transformations of a digital representation of one or more biometrics of a user, at least one of the transformation comprising

one or more non-invertible functions (see abstract; A receiver mechanisms receives the gray

image; notice, in the remote computer system, a gray image of a fingerprint image sampled by an

image scanner portion is compressed by a non-reversible (lossy) coding by a non-reversible

coding mechanism), and storing a plurality of records in one or more databases, each record

having one or more distorted biometrics (see col. 6, lines 24-28, the database recording portion

records the gray image in the database). Osuga does not expressly disclose receiving one or

more distorted biometrics associated with a user identifier, storing in a database a user identifier,

receiving one or more requests from a requester, the one or more requests containing one or

more target distorted biometrics associated with a target identifier, comparing in a processor the

one or more requests with one or more of the records, and providing the requester with an

indication that the target distorted biometric and the target identifier matched one or more of the

respective one or more districted biometrics and associated user identifiers. Black discloses

receiving one or more distorted biometrics associated with a user identifier (i.e. paragraph

[0137], the biometric stylus is combined with one or more primary identifiers), storing in a

database a user identifier (see paragraph [0068] card reader can store the fingerprint template and

other confidential data), receiving one or more requests from a requester, the one or more

requests containing one or more target distorted biometrics associated with a target identifier

comparing in a processor the one or more requests with one or more of the records (see claim 1:

"grasping a stylus as a transaction request is initiated"... "comparing the first sensed fingerprint

image with a first reference fingerprint image, the first reference fingerprint image being

captured during a user registration, fingerprint image comparison being performed within a

matching processor" and paragraph [0137] the biometric stylus is combined with one or more

primary identifiers to authentic identification), and providing the requester with an indication

that the target distorted biometric and the target identifier matched one or more of the respective

one or more districted biometrics and associated user identifiers (see claim 1- "approving the

transaction request whenever the matching processor determines that based at least partially upon

fingerprint comparison data of the first sensed fingerprint image and the first reference

fingerprint image identity is confirmed" and paragraph [0137] -"the biometric stylus is

combined with one or more primary identifiers to authenticate identification"... "then identity is

either confirmed or denied". Notice, the transaction is either approve or deny based on the

primary identifier and the biometric, which is "an indication that the target distorted biometric

and the target identifier matched one or more of the respective one or more distorted biometrics

and associated user identifiers"). At the time the invention was made, it would have been

obvious to a person of ordinary skill the art to modify the method disclose by Osuga to include

the steps of receiving one or more distorted biometrics associated with a user identifier, storing

in a database a user identifier, receiving one or more requests from a requester, the one or more

requests containing one or more target distorted biometrics associated with a target identifier,

comparing in a processor the one or more requests with one or more of the records, and

providing the requester with an indication that the target distorted biometric and the target

identifier matched one or more of the respective one or more districted biometrics and associated

user identifiers. One of ordinary skill in the art would have been motivated to do this because

utilizing primary identifiers improves transaction time and system efficiency (see paragraph

[0118]).

Referring to claim 10, Osuga discloses storing distorted biometrics (see claim 9 above). Osuga does not expressly disclose storing a distortion transform used to create the distorted biometric from the digital representation of the one or more biometrics of the user. However, this difference is only found in the nonfunctional descriptive material and is not functionally involved in the step recited. The storing step would have been performed the same regardless of the data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401,404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to store a plurality of records including any type of data because such data does not functionally relate to the steps in the method claimed and because the subjective interpretation of the data not patentably distinguish the claimed invention.

Referring to claim 11, Osuga discloses the distorted biometric can not be inverted to a digital representation of the biometric from which the distorted biometric was created (see claim 9 above).

Referring to claim 14, Osuga discloses creating distorted biometrics (see claim 9 above). Osuga does not expressly disclose the requester is any one or more of the following: a financial company, a bank, a brokerage, a credit card company, and a merchant. Black discloses the requester is any one or more of the following: a financial company, a bank, a brokerage, a credit card company, and a merchant (see abstract). At the time the invention was made, it would have been obvious to a person of ordinary skill the art to modify the method disclose by Osuga to include a requester that is any one or more of the following: a financial company, a bank, a

brokerage, a credit card company, and a merchant. One of ordinary skill in the art would have

been motivated to do this because it provides a secure access control mechanisms that ensures

that unauthorized individuals are prevented from accessing the system.

As for claims 15-18, see claim 9's rationale above.

6.   Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osuga

and Black as applied to claim 9 above, and further in view of US Patent No. 667538 to Ritter.

Osuga discloses distorted biometric (see claim 9 above). Osuga does not expressly

disclose the distorted biometric is canceled by allowing a user to replace the distorted biometric

with a second distorted biometric. Ritter discloses biometric is canceled by allowing a user to

replace the distorted biometric with a second distorted biometric (see col. 4, lines 9-15). At the

time the invention was made, it would have been obvious to a person of ordinary skill the art to

modify the method disclose by Osuga to include the step wherein the distorted biometric is

canceled by allowing a user to replace the distorted biometric with a second distorted biometric.

One of ordinary skill in the art would have been motivated to do this because it ensures that

changes are updated, thus providing a secure and accurate record of authentication data.

Referring to claim 13, Osuga disclose creating distorted biometrics (see claim 9 above).

Osuga does not expressly disclose the biometric is created by a second distortion transform that

is different than a first distortion transform used to create the distorted biometric; however, this is

an inherent step. Since the biometric is being updated/replace, it must have used a different

distortion transform. At the time the invention was made, it would have been obvious to a

person of ordinary skill the art to include the step wherein the second distorted biometric is

created by a second distortion transform that is different than a first distortion transform used to

create the distorted biometric. One of ordinary skill in the art would have been motivated to do

this because it ensures the changes are updated, thereby providing a secure and accurate record

of authentication data.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

- US Patent No. 6532541 to Chang et al. disclose an authentication processor that authentic

    images.

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this
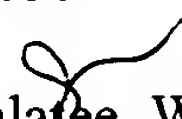
final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jalatee Worjloh whose telephone number is (571)272-6714. The examiner can normally be reached on Mondays-Thursdays 8:30 - 7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on (571) 272-6712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306 for Regular/After Final Actions and (571)273-6714 for Non-Official/Draft.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or.Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Jalatee Worjloh
Patent Examiner
Art Unit 3621

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July 7, 2005